

Appendix F:

March 23, 2017 Board Hearing Testimonies

Comments received as testimony at the second Board Hearing,
March 23, 2017

1 much. It was a great conversation, and we've got some
2 items to work on going forward. Thanks to the MPO
3 directors for coming and staying with us, and for all the
4 good analytical work you've been doing. And the next
5 question is -- first of all, we obviously need to take a
6 break. Everybody needs to stand up and stretch and move
7 around a little bit.

8 Are we up for dealing with the final item on our
9 agenda or will people just -- if you just can't take it
10 any more, which I would understand, we could move it to
11 tomorrow. Why don't you think about it while you're
12 taking your stretch, and then we'll decide.

13 (Off record: 7:13 p.m.)

14 (Thereupon a recess was taken.)

15 (On record: 7:19 p.m.)

16 CHAIR NICHOLS: I'm on now.

17 Thank you. Thank you, sound engineer. We are
18 dependent on you. We're going to take the last item,
19 because the staff has told me that they have boiled their
20 presentation down to the essentials, the absolute
21 essentials. Thank you so much.

22 (Laughter.)

23 CHAIR NICHOLS: And we have a short list of
24 witnesses, so -- and again, we'll be imposing the
25 two-minute limit. This is actually the -- placement of

OG-ST
3-2017 Hearing

Testimony for this board
item begins on page 416 of
the transcript.

1 this item on the agenda does not reflect the importance.
2 This is actually a very important item that we're dealing
3 wit here, but everything has to have an order, and this --
4 this is where it fell today.

5 So with that, I am going to call Agenda Item
6 17-3-6. This is the --

7 BOARD MEMBER MITCHELL: Madam Chair?

8 CHAIR NICHOLS: Yes.

9 BOARD MEMBER MITCHELL: Madam Chair, I just need
10 to announce that I'm going to recuse myself from this item
11 and leave the dais, because a decision on this item may
12 affect a financial interest that I hold, so...

13 CHAIR NICHOLS: Thank you very much, and thank
14 you for letting us know that you weren't just leaving to
15 go party while the rest of us were still working --

16 (Laughter.)

17 CHAIR NICHOLS: -- because there are others who
18 would have, I'm sure, opted to join you.

19 We'll see you tomorrow.

20 BOARD MEMBER RIORDAN: 8:30.

21 CHAIR NICHOLS: 8:30 tomorrow morning.

22 (Laughter.)

23 CHAIR NICHOLS: 8:30, yes.

24 Okay. So last item on the agenda is a proposed
25 regulation for greenhouse gas emissions standards, for

1 crude oil, and natural gas facilities. It's the second of
2 two hearings on this item. The first hearing considered
3 the proposed regulation along with the staff's 15-day
4 change proposals. And this is now back before us for
5 final approval.

6 And with that, I'm going to turn it over to the
7 staff. It's about methane.

8 EXECUTIVE OFFICER COREY: Yes, go.

9 CHAIR NICHOLS: Okay. You got a nice picture.

10 (Thereupon an overhead presentation was
11 presented as follows.)

12 CHAIR NICHOLS: That's a good start.

13 AIR RESOURCES ENGINEER FISCHER: Thank you.

14 Thank you, Mr. Corey. Good evening, Chair
15 Nichols and members of the Board, right?

16 (Laughter.)

17 CHAIR NICHOLS: He was going to waive his
18 presentation any way.

19 (Laughter.)

20 AIR RESOURCES ENGINEER FISCHER: Well, given the
21 late hour, and that this is the second hearing, I will
22 just be covering the highlights.

23 Next Slide.

24 --o0o--

25 AIR RESOURCES ENGINEER FISCHER: Here's an

1 overview of my presentation.

2 Next slide.

3 --o0o--

4 AIR RESOURCES ENGINEER FISCHER: Now, I will go
5 through a little background.

6 Next slide.

7 --o0o--

8 AIR RESOURCES ENGINEER FISCHER: Both the
9 original and 2013 update to the Climate Change Scoping
10 Plan identified the oil and gas sector as a significant
11 source of methane emissions. In addition, the Short-Lived
12 Climate Pollutant Strategy includes a 40 to 45 percent
13 reduction in methane from this sector by 2025. The
14 proposed regulation also helps further the objectives of
15 SB 4 and SB 887.

16 Next slide.

17 --o0o--

18 AIR RESOURCES ENGINEER FISCHER: In 2013, methane
19 emissions from this sector accounted for approximately
20 four percent of the total statewide methane emissions in
21 California. Other large sources of methane include
22 agriculture, waste handling, and pipeline related
23 activities.

24 Next slide.

25 --o0o--

1 AIR RESOURCES ENGINEER FISCHER: We coordinated
2 with our sister agencies at the Division of Oil and Gas
3 and Geothermal Resources, or DOGGR, and the California
4 Public Utilities Commission, or CPUC, to ensure
5 consistency with the related rule-makings. Also, we have
6 been working closely with the local air districts
7 throughout the development of this regulation.

8 Next slide.

9 --o0o--

10 AIR RESOURCES ENGINEER FISCHER: We've also been
11 reviewing federal actions related to oil and gas
12 facilities. Our proposal is for both new and existing
13 sources, is broader in coverage, and is generally
14 equivalent or more Stringent. We've been working to
15 harmonize these requirements as much as possible in order
16 to smooth implementation and to streamline the different
17 testing and reporting requirements.

18 Next slide.

19 --o0o--

20 AIR RESOURCES ENGINEER FISCHER: I will now
21 briefly discuss the proposed regulation with changes
22 incorporated since the last Board hearing.

23 --o0o--

24 AIR RESOURCES ENGINEER FISCHER: We have been
25 developing the proposed regulation for over two years

1 through an extensive engagement process with air districts
2 and stakeholders.

3 Next slide.

4 Next slide.

5 --o0o--

6 AIR RESOURCES ENGINEER FISCHER: The proposed
7 regulation overs intentional emissions, also known as
8 vented emissions, as well as unintentional emissions
9 called fugitive emissions or leaks.

10 Here's a list of the types of new and existing
11 oil and gas operations covered by this rule.

12 Next slide.

13 --o0o--

14 AIR RESOURCES ENGINEER FISCHER: I will now
15 describe the main provisions of the proposed regulation.
16 Separator and tank systems are used for separating crude
17 oil from produced water or for separating produced water
18 from natural gas. As part of the 15-day changes, we
19 clarified the provisions to exempt very low throughput
20 systems, as well as small gauge tanks because these
21 systems or tanks would have negligible

22 Next slide.

23 --o0o--

24 AIR RESOURCES ENGINEER FISCHER: Circulation
25 tanks are used in conjunction with well stimulation

1 treatments and used to remove excess sand from a well
2 after hydraulic fracturing or fracking.

3 In addition to following a best practices
4 management plan, as part of our 15-day changes, we
5 clarified that the technology assessment specified in the
6 proposed rule be made available in time for the ARB
7 Executive Officer to make a determination on whether or
8 not vapor controls will be required by January 1st, 2020.

9 --o0o--

10 AIR RESOURCES ENGINEER FISCHER: Leak detection
11 and repair or LDAR is a program designed for finding and
12 repairing leaking components, such as valves, flanges, or
13 pipe-fittings. Under this proposal, LDAR would be used to
14 find and repair leaks of methane at all types of
15 facilities, including natural gas facilities not covered
16 by district rules.

17 The proposal requires quarterly instrument
18 inspections to locate leaks. These requirements have been
19 modeled directly after existing local district rules. In
20 the July 2016 version of the proposed regulation, there
21 was a provision that allowed facilities to step down from
22 quarter to annual inspections.

23 Based on additional scientific information and
24 per the Board's direction, we removed the annual step-down
25 provision as part of our 15-day changes. During the

1 comment period, we received comments by some stakeholders
2 that believed that leaks found in the 4th quarter will
3 result in an automatic violation. We clarified that as
4 stated in the context of the regulation, they will not
5 receive a violation for repairing leaks within the
6 specified time frames.

7 We also received comments expressing concern that
8 a facility may need to vent or blow down large volumes of
9 gas in order to make minor repairs, and that this could
10 create more emissions. We believe that -- we believe that
11 most leaks would not require such blow downs to repair.
12 Nevertheless, this concern can be addressed for safety or
13 natural gas system reliability reasons by way of the delay
14 of repair or critical component provisions which allow for
15 longer repair times.

16 We plan to include these clarifications as part
17 of our Final Statement of Reasons that we submit to the
18 Office of Administrative Law. And we may also find a need
19 to issue additional guidance during implementation for
20 this and other topics.

21 --o0o--

22 AIR RESOURCES ENGINEER FISCHER: For underground
23 natural gas storage facilities, the proposal includes a
24 monitoring plan that covers both ambient air monitoring
25 and wellhead monitoring designed for the early detection

1 of leaks. These requirements are in addition to LDAR and
2 are based on lessons learned from Aliso Canyon, which
3 highlighted the need for regular monitoring at these high
4 pressure concentrated sites.

5 As part of the 15-day changes, we revised the
6 ambient air monitoring provision to include upwind and
7 downwind monitoring sensors and revise the baseline
8 monitoring criteria. We also incorporated new
9 requirement -- a new requirement based on SB 887 requiring
10 the use of optical gas imaging in the event of a well
11 blowout.

12 --o0o--

13 AIR RESOURCES ENGINEER FISCHER: We made no
14 significant changes to the provision for -- on
15 compressors, so in the interests of time, I'll skip this
16 slide.

17 --o0o--

18 AIR RESOURCES ENGINEER FISCHER: We also made no
19 significant changes to pneumatics or measurement and
20 reporting requirements, so I will skip this slide.

21 --o0o--

22 AIR RESOURCES ENGINEER FISCHER: Beginning
23 January 1st, 2018, the testing and reporting requirements
24 take effect. Beginning January 1st, 2019, the equipment
25 changes-outs go into effect. And finally, beginning

1 January 1st, 2020, circulation tank must be controlled
2 with the use of a vapor collection system, unless the ARB
3 Executive Officer determines otherwise, after reviewing
4 the results of the technology assessment.

5 We have developed this phased-in approach to put
6 the regulation in place as quickly as possible, while
7 recognizing necessary lead time.

8 --o0o--

9 AIR RESOURCES ENGINEER FISCHER: The overall
10 estimated annualized cost of the proposed regulation is
11 \$27.3 million, and the regulation results in estimated
12 annual methane reductions of more than 1.4 million metric
13 tons of CO2 equivalent using a 20-year global warming
14 potential. These estimates reflect 15-day changes.

15 The proposed regulation resulted in an overall
16 cost effectiveness of about \$19 per metric ton of CO2
17 equivalent reduced.

18 --o0o--

19 AIR RESOURCES ENGINEER FISCHER: This proposal
20 also results in statewide emission reduction co-benefits,
21 and VOC -- of VOC and toxic air contaminant and results in
22 a neutral statewide NOx impact.

23 --o0o--

24 AIR RESOURCES ENGINEER FISCHER: Next, I will
25 briefly discuss the environmental analysis.

--o0o--

AIR RESOURCES ENGINEER FISCHER: Staff completed a draft environmental analysis, or EA, for the proposed regulation. Staff received two comment letters on the draft EA during the 45-day public comment period. Staff has also provided the final EA and written responses to comments on the draft EA to the Board for your consideration.

--o0o--

AIR RESOURCES ENGINEER FISCHER: I will now cover some of the aspects related to implementation.

--o0o--

AIR RESOURCES ENGINEER FISCHER: As I mentioned, the local air districts play a major role in reducing emissions from stationary sources. This proposal allows both ARB and the districts to implement the proposed regulation. However, district implementation is preferred. Districts are encouraged to charge fees to help cover the cost of implementation, and that can also keep enforcement penalties. ARB is also working with the air pollution control officers of affected districts in exploring additional resource options to aid with the cost for personnel and test equipment.

--o0o--

AIR RESOURCES ENGINEER FISCHER: ARB and the

1 districts have developed a Memorandum of Agreement that
2 specifies each agency's roles and responsibilities,
3 enforcement coordination, as well as a supporting -- as
4 well as supporting information and data sharing. We
5 expect the MOA to be completed this summer prior to
6 implementation of the regulation.

7 --o0o--

8 AIR RESOURCES ENGINEER FISCHER: As is typical of
9 ARB programs, we will examine the data reported each year,
10 along with any additional voluntary data provided. We
11 also plan to work closely with CAPCOA and stakeholders to
12 develop guidance, while we monitor implementation. This
13 may include guidance on clarity issues related to LDAR
14 concerns on the fourth quarter violations and blow downs.
15 We plan to periodically update the Board and propose
16 adjustments as necessary.

17 --o0o--

18 AIR RESOURCES ENGINEER FISCHER: I will now
19 present staff's recommendation.

20 --o0o--

21 AIR RESOURCES ENGINEER FISCHER: Staff recommends
22 that the Board adopt Resolution 17-10 to approve the
23 written responses to the environmental analysis comments,
24 certify the final environmental analysis, and make the
25 required CEQA findings, to adopt the final regulation

1 order, and direct staff to continue working with the
2 districts to finalize the MOAs.

3 That concludes my presentation, I would now like
4 to introduce Alan Abbs, the Executive Director of the
5 California Air Pollution Control Officers Association to
6 say a few words.

7 After Alan, you will also hear from Rob Habel of
8 the Division of Oil, Gas and Geothermal Resources. In
9 addition, CPUC has provided a letter of support.

10 CHAIR NICHOLS: Hello again.

11 CAPCOA EXECUTIVE DIRECTOR ABBS: Good evening. I
12 didn't realize I had a position of honor tonight for this.

13 (Laughter.)

14 CAPCOA EXECUTIVE DIRECTOR ABBS: I thought I was
15 just going to be a commenter.

16 My name is Alan Abbs and I'm the Executive
17 Director of the California Air Pollution Control Officers
18 Association. Thank you for the opportunity to come up and
19 support this regulation, that if approved and implemented
20 would result in significant reductions in methane across
21 the State, as well as toxic air contaminants. And I think
22 that's one of the things that we're -- we strive to do in
23 all these GHG regulations is not only get the reductions
24 for GHGs, but also get the criteria pollutant reductions
25 and the toxic air contaminant reductions. And so that's a

1 nice thing to see as part of this regulation.

2 This -- staff only had give minutes to do the
3 presentation, but it belies that there's been a lot of
4 work that's gone into making this regulation. And the air
5 districts have been working with ARB staff for over two
6 years in various work groups to look at the regulation and
7 the implementation, and try to do refinements.

8 And this regulation is one of those unique ones
9 that connects stationary sources with greenhouse gas
10 regulations. And so it's a mash up of air district
11 responsibilities, and ARB responsibilities. And these are
12 particularly difficult regulations to get through and --
13 but we manage to do it.

14 And so we have haven't fully gotten the process
15 down, but we got pretty close this time. And we're
16 looking forward to finishing up the MOU process and the
17 implementation phase to make this regulation a success.

18 The last thing I'll stay is that there -- we have
19 two types of air districts that are going to be
20 implementing this regulation. We have oil and gas
21 districts, ones that have existing oil and gas operations
22 and traditionally have -- have these facilities under
23 permit. And then the non-associated gas districts, which
24 traditionally have only permitted combustion devices that
25 are at these non-associated gas facilities like

1 compressors and dehydrators.

2 The non-associated gas districts, as staff
3 mentioned, are going to need some significant support
4 going forward to make sure that they can implement this
5 regulation, because they're going to be adding a lot of --
6 a lot of components as part of their -- as part of their
7 permitting and enforcement that haven't been permitted and
8 inspected before.

9 And so staff mentioned some help with staffing,
10 with resources, with equipment, we'll all be -- we'll all
11 be looking for support from ARB for that going forward.

12 So with that, thank you for the opportunity to
13 comment. And as I said, we look forward to working with
14 CARB during the implementation phase.

15 Thanks.

16 BOARD MEMBER SHERRIFFS: Can I ask a question?

17 CHAIR NICHOLS: Yes.

18 BOARD MEMBER SHERRIFFS: I was wondering how many
19 districts this will affect and what percent of them, in
20 fact, are -- have expressed an interest in --

21 CAPCOA EXECUTIVE DIRECTOR ABBS: In implementing
22 the --

23 BOARD MEMBER SHERRIFFS: In implementing it, yes.

24 CAPCOA EXECUTIVE DIRECTOR ABBS: So we have -- we
25 have 15 air districts that look like they would be

1 affected or would have sources that they would regulate as
2 part of this regulation, and about, roughly split, half
3 are oil and gas districts and half are non-associated gas.
4 And from what I've been able to figure out, the oil and
5 gas districts are all going to be able to roll those
6 regulations into their existing enforcement and
7 implementation. We have the non-associated gas districts
8 that are really looking at the regulation. And part of
9 it's going to rely on the implementation and the
10 Memorandum of Understanding with ARB.

11 But I believe that our goal should be to get all
12 of the districts to do it. But it will be challenging,
13 but we'll give it a shot. May not be successful, but
14 we'll give it a shot.

15 Thanks.

16 CHAIR NICHOLS: Okay. We were going from our
17 colleagues with Department -- Division of Oil and Gas.

18 DOGGR SPECIAL ASSISTANT HABEL: Good evening.

19 CHAIR NICHOLS: Hi.

20 DOGGR SPECIAL ASSISTANT HABEL: My name is Rob
21 Habel with the Division of Oil and Gas and Geothermal
22 Resources. As Joe mentioned, a sister agency to ARB.

23 First of all, I'd like to mention that the
24 Division of Oil and Gas is the major regulatory agency
25 responsible for overseeing the development of oil and gas

1 resources in the State.

2 And although the majority of our work deals with
3 the subsurface, the construction of the wells, the
4 operating the wells, and a variety of other things, we
5 also do have a component of the surface, such as tanks,
6 pipelines, compressors and so on. Therefore, we have an
7 overlapping role with a lot of the work that ARB does.
8 And so we've been working very closely with ARB for
9 several years, even before SB 4. You remember SB 4
10 dealing with well stimulation, hydraulic fracking.

11 And through that effort, we do have a memorandum
12 of agreement to share information, and bring ARB into the
13 permitting process, and take their comments. So they're
14 very involved.

15 And more recently, we've had a lot of
16 conversations with the staff ARB dealing with Aliso
17 Canyon. So we've had meetings on a regular basis. We've
18 conducted site visits looking at new technology. And
19 because the Division has Emergency regulations in effect,
20 as a result of Aliso Canyon, we had leak detection
21 protocols associated with that.

22 And as a result of the emergency regulations,
23 we're in the process of finalizing having permanent
24 regulations, which should be coming out next several
25 weeks. And in that component is with the leak detection

1 most of that really should fall onto ARB, but since we
2 were already poised to do that, we have that
3 responsibility, and we're working very, very closely with
4 the ARB staff.

5 At the same time, with our rule-making that's
6 coming out very soon in the next several weeks, we've also
7 worked out a nice hand-off to ARB. So we've been informed
8 that even though the regulations may be in effect January
9 1, 2018, they probably won't be fully implemented until
10 September 2018. So the way we worked very closely with
11 our legal team and ARB's legal team to draft our
12 regulations to make a nice smooth hand-off that we will
13 continue doing the monitoring until ARB's program is fully
14 implemented.

15 And so we are here in support. We're working
16 very closely with ARB, and we look forward to continually
17 working closely with the staff to regulate the oil and gas
18 industry and any emissions. And I'm here to answer any
19 questions if you may have any.

20 CHAIR NICHOLS: Thank you. I appreciate very
21 much your being here and spending the time with us, and
22 always your collaboration on this. It is always a little
23 bit tricky when you've got agencies with slightly
24 different mandates, but overlapping areas of jurisdiction.
25 And we certainly recognize that your Division has the lead

1 on this industry as far as California is concerned. But
2 we get to -- we get to be responsible for everything that
3 competes -- everything that contributes at least to
4 greenhouse gas emissions. So it's -- I think it's worked
5 well, and thank you for all your help.

6 Thank you.

7 DOGGR SPECIAL ASSISTANT HABEL: Thank you.

8 CHAIR NICHOLS: As you mentioned, we also have a
9 letter from the Public Utilities Commission urging us to
10 move forward at this point as well.

11 So I guess we should now turn to the witnesses.
12 If you want to come forward, those of you who have made
13 the long trek and are still with us starting with Bruce
14 Baizel and on.

OG-ST-1-Baizel

15 MR. BAIZEL: Good evening. Good evening,
16 Chairman Nichols and Board. Thank you for persevering. I
17 came from southwest Colorado. And it's a little different
18 than the last time I came and submitted comments. I
19 worked -- we have an -- I'm an NGO. We work with
20 communities on the impacts from oil and gas and mining.
21 And under my supervision, we have a couple of the OGI
22 infrared cameras that we've been using in conjunction with
23 communities, particularly down in Kern County, but also in
24 L.A. basin to look at emissions. And we do some air
25 testing and things like that. So I participated in the

1 Colorado rulemaking when we did our methane rule in 2014.

2 So part of the reason I felt it was important to
3 be here today was because this is a very significant rule,
4 and we are extremely pleased that this has come to
5 fruition. This rule -- this rule nationally will raise
6 the standards for what's done in terms of leak detection,
7 and control of methane emissions in the oil and gas
8 exploration and production and storage areas.

ST-1-1

9 So for us as an NGO trying to reduce impacts
10 we're extremely pleased. And I think for that reason
11 alone, it was worth the price of the plain ticket to come
12 out. And hopefully, you will be passing that -- passing
13 this.

14 But the second reason is that we -- because we do
15 work with communities, and part of what we do is try to
16 help increase enforcement, and we -- so we read the rule
17 very carefully. And we're very comfortable with the
18 provisions that are in there that will allow us to
19 continue to use the infrared technology to say, yes, what
20 you're smelling is also -- have some methane components to
21 it. And therefore, you can go to the air district. And
22 we've done that successfully this past fall. For example,
23 some tanks down in Kern County, where they submitted the
24 videos and the complaint was filed, and a violation of --
25 notice of violation was issued.

ST-1-2

1 So I'm really pleased that you're doing this, and
2 glad to be here.

3 CHAIR NICHOLS: Thank you. Thanks for joining.

4 MR. EDER: Is there a timing thing?

OG-ST-2-Eder

5 CHAIR NICHOLS: Yes.

6 MR. EDER: Where is it?

7 CHAIR NICHOLS: You can see it off to your left,
8 I believe. The number should pop up as soon you start.
9 Well, it's not popping up at the moment. Where is the
10 timer.

11 MR. EDER: Is this it here?

12 CHAIR NICHOLS: It's that yeah, but it hasn't
13 started yet.

14 MR. EDER: One that doesn't move. Anyway.

15 CHAIR NICHOLS: It won't start until you start
16 speaking.

17 VICE CHAIR BERG: And the lights in front of
18 you --

19 CHAIR NICHOLS: And there's a light in front of
20 you also. That green light that -- so --

21 MR. EDER: Okay. Well, knowing how much time you
22 have is valuable. Anyway. I support this. I did some
23 work with going to DOGGR meetings about solar for storage,
24 which was ignored. They're using these -- the same
25 facilities could be used for solar storage as used for

ST-2-1

1 natural, gas and oil.

2 Worked with a group on fracking. You folks said
3 8, 10 years ago there was no fracking in the State. Well,
4 there is. And that happens on the 90 percent of the
5 natural gas that comes into the State.

6 This brings the greenhouse gas numbers way up,
7 even on 100-year basis over 100. Work done out of Cornell
8 Howarth et al. incorporated into the record by reference.

9 They're -- this -- we have -- we've got oil and
10 gas around, and we've got to use them for the transition.
11 Also, there's the possibility of the State litigating
12 against ExxonMobil. They knew about this since '76 -- I
13 see a green light -- this is a minute that I'm limited to?

14 Okay. All right. Well, they've got to be phased
15 out, and solar has to be phased in.

16 Oh, okay. Anyway. There's no two ways about it.
17 The sooner we do it, the better, and there is, you know,
18 the laws on the books about non-renewable fossil fuels.
19 And anyway, we need to work on solar conversion as soon as
20 possible.

21 It says in the law that is expediently as
22 practical, which means at least five years ago, when we
23 had the '12 plan and stuff was cost effective then.

24 MS. THOMAS: Good evening. I'm Taylor Thomas
25 with --

ST-2-1
cont.

ST-2-2

OG-ST-3-Thomas

1 (Timer went off.)

2 MS. THOMAS: Woop. I didn't even start yet.

3 I will be very brief. I'm Taylor Thomas with
4 East Yard Communities for Environmental Justice. I'll
5 just get right to the point. I'm here with four specific
6 asks, maintain the leak threshold at 1,000 parts per
7 million, maintain the quarterly leak repair timelines,
8 prioritize the top 25 percent of disadvantaged
9 communities, as identified by CalEnviroScreen, and move
10 forward with the adoption of this rule today.

ST-3-1

11 Thank you.

OG-ST-4-Ali

12 MS. ALI: Good evening, Chair Nichols and members
13 of the Board. Fariya Ali on behalf of PG&E. I'd like to
14 start off by really thanking staff for all of their hard
15 work on the oil and gas regulation. In particular,
16 staff's efforts to try and address some of our operational
17 concerns.

ST-4-1

18 For example, as Mr. Fischer mentioned, the
19 clarification by ARB that it is not their intent for leaks
20 above the thresholds that are found by operators in the
21 fourth quarter of every year to automatically be
22 considered violations, as long as they're repaired on time
23 is really important and we look forward to seeing this
24 explanation in the Final Statement of Reasons, and
25 recommend that it be included in guidance to the local air

ST-4-2

1 districts as appropriate as well.

2 However, the use of EPA Method 21 as the basis in
3 this rule for characterizing the severity of leaks is
4 still a major concern, as it can lead to a considerable --
5 as it could lead to a considerable amount of time and
6 resources being spent to repair leaks of negligible size.

7 Method 21 is not a good predictor of actual
8 methane emissions. A leak that has a high concentration
9 measurement does not necessarily indicate a high emission
10 leak. And this has been demonstrated in the Stage
11 Research Report recently released by ARB as well as our
12 survey results as well.

13 So as we move forward into implementation, we
14 really hope that ARB will continue to work with operators
15 to identify better tools and methodologies to characterize
16 leaks in Method 21 alone, and that we can incorporate
17 these into the regulation as soon as its feasible to make
18 amendments. I'd just like to thank staff again, and look
19 forward to continuing to work on this to achieve our
20 common goal for cost effective methane emission reductions
21 to the natural gas system.

22 Thank you.

OG-ST-5-Phillips

23 MS. PHILLIPS: Kathryn Phillips with Sierra Club
24 California. This was a rule that one of our national
25 attorneys, Elly Benson has been following carefully. The

1 fact that national got involved should suggest to you how
2 important this is for the Sierra Club, but also for
3 everybody around the country who's been watching this
4 rule.

5 I just want to urge CARB to continue the work
6 that it's going to be doing on the MOA to make sure that
7 there's a very careful plan to make sure this is actually
8 implemented at the local level, and there's probably going
9 to require some monitoring and some close coordination.

ST-5-1

10 Also urge ARB to prioritize enforcement at
11 facilities near environmental justice communities. And
12 then finally, I just want to thank you for requiring the
13 quarterly inspections and for rejecting a stepdown
14 provision. That's a very important one for all of us.

ST-5-2

ST-5-3

15 Thank you.

OG-ST-6-Barrett

16 MR. BARRETT: Good evening. I'm Will Barrett
17 with the American Lung Association in California. The
18 American Lung Association supports the reduction of
19 methane and other toxic emissions from the whole lifecycle
20 of the oil and gas sector.

21 In contrast to the federal dialogue right now on
22 methane, we view this proposal before you as an important
23 signal that will continue to protect our people and our
24 climate against the unnecessary waste and leakage in the
25 oil and gas sector. We view the quarterly -- ongoing

ST-6-1

1 quarterly monitoring and correction of leaks as key, and
2 applaud that the Board is moving forward with that
3 provision without a stepdown going forward.

ST-6-2

4 We encourage you to adopt the plan today and move
5 forward with implementation in coordination with the air
6 districts and in coordination with ensuring that the
7 environmental justice community is most affected by
8 this -- the leaks are treated well in this implementation.

ST-6-3

9 With that, thank you very much for your
10 leadership and your patience throughout the day.

11 Thank you.

OG-ST-7-Marquez

12 MR. MARQUEZ: Thank you for this opportunity to
13 speak. My name is Jesse Marquez, executive director of
14 the Coalition for a Safe Environment, and also speaking on
15 behalf of Los Angeles Environmental Justice Network and
16 the California Communities Against Toxics.

17 And I'm here to say congratulations for doing a
18 great job. Staff who worked on it, a special kudo to you,
19 especially for doing the interfacing with other agencies,
20 because I always have to deal with all those little
21 problems.

ST-7-1

22 What we do like about this regulation are several
23 things. We do support the natural gas underground storage
24 facility's air monitoring, but we also want to make sure
25 it's for all categories of chemicals.

ST-7-2

1 We do support the daily and continuous leak
2 screening at each injection with withdrawal wellhead and
3 pipelines. I live on top of the Wilmington oil field all
4 my life. There are over three, four hundred operating oil
5 wells right now, and about 100 more still in the planning
6 to be done, so this is a major concern.

ST-7-3

7 We do congratulate you for using and
8 acknowledging the best available control technology, which
9 is a vapor collection system and vapor control devices.
10 The ironic thing I have to ask is why is it mandatory
11 here, when I brought it up during the SIP and AQMD that
12 oil refineries do not have to use this best available
13 control technology on their storage tanks. That needs to
14 be corrected.

ST-7-4

15 We also want to make sure that this reg is not a
16 permit that allows the oil well drilling industry to
17 continue fracking or expanding their fracking. I do not
18 want this to be a reference that is a permit for them to
19 do that. So please clarify that.

ST-7-5

20 I did look at your regulations for -- that
21 identifies your enforcement. And I do applaud you for the
22 categories of clearly defining what they must comply with.
23 However, I discovered a big problem here.

ST-7-6

24 Nowhere is there an acknowledgement or section
25 for the penalties and sanctions for violating any of these

1 criterias. It does not exist in the document. Please
2 correct that, and we want to see it for the next document.

ST-7-6
cont.

3 MR. PITCHER: Good evening Chair Nichols, members
4 of the Board. My name is Jenifer Pitcher, and I'm here on
5 behalf of the Western States Petroleum Association.

OG-ST-8-Pitcher

6 I would first like to start off by expressing our
7 appreciation to your staff for working with WSPA and our
8 members over the last three years in the development of
9 this methane relation.

ST-8-1

10 From the beginning of the rule development
11 process, we've emphasized the importance of ensuring that
12 methane regulation recognizes existing control
13 requirements and does not unnecessarily impose duplicative
14 requirements on operators.

ST-8-2

15 In general, WSPA supports many of the staff's
16 revisions. However, we would like to again, for the
17 record, point out some of the following issues and
18 recommendations for your consideration.

19 For circulation tanks, ARB is proposing control
20 measures for circulation tanks beginning in 2020. As
21 noted in our comments, we remain concerned that there are
22 no feasible control technologies currently available that
23 can achieve the requirement to be able to meet the 95
24 percent control efficiency, including the disposal without
25 the use of supplemental fuel, or that can be disposed of

ST-8-3

1 without raising potential safety risks with the control
2 measures proposed.

3 We believe staff's revisions provide
4 clarification to allow for operators to continue with BNPs
5 if no such technology is available by the 2020 deadline.
6 We want to emphasize the importance for ARB to revisit the
7 regulation and make necessary revisions in the event that
8 no technology is available.

ST-8-3
cont.

9 We also provided a safety analysis on the
10 circulation tanks, and we have that safety expert here to
11 answer any questions that you have.

12 For leak detection and repair, we've stated
13 previously in our comments that oil and gas operators have
14 been subject to LDAR programs for over 30 years in the San
15 Joaquin Valley and in other air pollution control
16 districts. We understand the concerns raised in regards
17 to natural gas storage projects. And we again want to
18 point out there is immense differences between oil
19 production and storage.

ST-8-4

20 Given that WSPA members Have implemented LDAR
21 inspec -- LDAR programs and equipment for the past several
22 decades, we would urge the Board to reinstate the
23 step-down provision. And if the Board does not agree to
24 reinstate it, we would encourage you to direct staff to
25 evaluate the data that's generated from the LDAR program,

1 and reconsider adjusting the frequency of inspections at a later date. 2

ST-8-4
cont.

3 And with that, I also provided some letters of
4 support for you. And I thank you for your time.

OG-ST-9-Rivera

5 MR. RIVERA: Good evening. Willie Rivera,
6 Director of Regulatory Affairs for the California
7 Independent Petroleum Association.

8 I've been waiting in that audience for 11 hours
9 to be in front of you. So I am glad to have finally made
10 it here.

11 The beauty of 11 hours is I had a whole lot of
12 time to condense my comments into four points. And they
13 are Joe, Jim, Elizabeth, and Craig. Your staff to my
14 right did a great job on this over the last few years.
15 This has been long, enduring, and arduous. And while we
16 made a great degree of progress and I can't tell you that
17 we believe there's a perfect regulation before you here
18 this evening, we're excited to continue working with you
19 and your staff on the implementation of this particular
20 regulation at the local districts.

ST-9-1

21 I think as the MOA process continues and
22 memorandums begin to take shape, as key stakeholders, we
23 should be involved in that process to the greatest extent
24 possible. And we ask that that be incorporated into your
25 actions moving forward.

ST-9-2

1 We did submit a letter with several items for
2 consideration in February. I don't need to go through
3 those now. But if those items can be recognized in a
4 Final Statement of Reasons, or in the adoption of the
5 resolution, or in somehow, or in some fashion be
6 addressed, we would appreciate that.

ST-9-3

7 We would also stand in strong support of WSPA's
8 suggestion just now related to LDAR inspections and
9 revisiting data in a few years. We believe that's
10 critical as well.

ST-9-4

11 Otherwise, thank you for your time. Have a good
12 evening.

OG-ST-10-Morris

13 MS. MORRIS: Jennifer Morris representing
14 SoCalGas. First, we'd also like to thank the staff for
15 working with stakeholders during the rulemaking process.
16 Particularly during the past year, staff have put a lot of
17 effort into addressing our concerns and we do appreciate
18 that.

ST-10-1

19 We especially appreciate Mr. Fischer addressing
20 our concern about the issue of leaks reported by operators
21 in the fourth quarter. And we look forward to this
22 clarification in the upcoming FSOR and guidance to the air
23 districts.

ST-10-2

24 We share ARB's methane reduction goals, and
25 support State efforts to mitigate methane in a technically

1 feasible and cost effective manner. We do still have a
2 few remaining operational and feasibility concern with
3 this rule, and we have raised these issues with both staff
4 and the Board. These concerns are automatic violations
5 for leaks measured above allowable thresholds as Method 21
6 concentration measurements that have been shown to be a
7 poor predictor of actual methane volume.

ST-10-3

8 Safety risks and feasibility issues with vapor
9 recovery requirements for compressors and limited viable
10 technology options in the storage monitoring provision of
11 the rule.

ST-10-4

12 We do appreciate staff's commitment to work with
13 us on remaining concerns during implementation of the
14 rule, and to modify the rule, if needed.

ST-10-5

15 We look forward to working with ARB to ensure a
16 successful rule implementation. And again, we thank staff
17 for their efforts in working with stakeholders.

18 CHAIR NICHOLS: Thank you.

19 Laura Yao, or Willie Rivera -- no. Jennifer
20 Morris, Laura Yao. Not here.

21 Irene Burga?

22 And then Bill Magavern.

OG-ST-11-Burga

23 MS. BURGA: Hello. Good afternoon -- evening.

24 My name is Irene Burga and I'm with the
25 Environmental Defense Fund. Thank you for the opportunity

1 to comment in support of this landmark rule, which we urge
2 the Board to adopt today. This rule is the product of
3 many years of effort by the Board, careful consideration
4 by staff, thoughtful listening of stakeholders, and
5 tracking important developments and impacts of methane on
6 climate and the effects of oil and gas pollution on public
7 health.

8 EDF has been an active participant on this issue
9 in California for much of the last seven years. We can
10 say with confidence that finalizing the rule today will
11 bring climate benefits, produce jobs, reduce waste and
12 inefficiencies in oil and gas operations and benefit
13 communities in California.

14 The rule will also support efforts of like-minded
15 jurisdictions across the country, which is especially
16 important, given federal efforts to repeal similar
17 regulations. These requirements are critical to ensuring
18 that ARB meets objectives aimed at reducing statewide
19 methane emissions, all while delivering significant public
20 health benefits. Oil and gas emissions include cancer
21 causing compounds like benzene, as well as volatile
22 organic compounds that form smog and cause respiratory
23 problems. Impacted communities near oil and gas have
24 reported experiencing severe headaches, nausea,
25 nosebleeds, and respiratory problems just to name a few.

ST-11-1

1 These and other related impacts often correlate
2 with a higher number of days missed from school and work,
3 lower educational attainment and income potential, and
4 weakened health, and overall impacts, which are felt most
5 in low income communities and communities of color.

ST-11-2

6 Given the equity concerns, we recommend the rule
7 implementation prioritize facilities in close proximity to
8 disadvantaged communities identified in the top 25 percent
9 of the CalEnviroScreen.

10 We applaud CARB for remaining committed to
11 requiring quarterly inspections.

ST-11-3

12 And I just wanted to say we urge you guys to
13 adopt this and appreciate all the hard work done by staff
14 and the Board. Thank you.

OG-ST-12-Magavern

15 MR. MAGAVERN: Good evening, Bill Magavern with
16 the Coalition for Clean Air. And as Irene said, this rule
17 has been in the making for a long time. We're very eager
18 for it to be implemented. I'm also very eager to get
19 something to eat.

20 (Laughter.)

21 MR. MAGAVERN: So I will just say speaking also
22 on behalf of John Shears from CEERT who's sitting behind
23 me, we particularly appreciate the removal of the
24 step-down provision for inspections. And this rule we
25 think is going to be the best in the country and becomes

ST-12-1

1 especially significant, given the federal government's
2 retreat from methane regulation. ST-12-2

3 Thank you.

4 CHAIR NICHOLS: And you are the last speaker, and
5 so I am going to close the record.

6 (Applause.)

7 CHAIR NICHOLS: And I'm going to omit my closing
8 remarks, because actually Mr. Magavern pretty much said
9 what I would have said. The only thing I would add to
10 that is that I really appreciate the fact that the oil and
11 gas industry worked with us on this regulation, and played
12 a positive and constructive role in bringing us to this
13 point. Not to say that that isn't always the case, but,
14 you know, sometimes our disagreements, especially on
15 technical matters, can really be profound and difficult to
16 overcome.

17 And I think this is one where respect on both
18 sides prevailed. And so as a result of that, we have a
19 much stronger rule, but it's also one that can be adapted
20 as we move along, if we gain new information if there's
21 reasonable to do so.

22 So with that, I want to thank the staff as well,
23 especially for being so flexible and for making your
24 presentation so brisk.

25 And now, unless anybody has any further

1 discussion on this item, I think I can just ask that we
2 bring it forward.

3 VICE CHAIR BERG: Yes, I would move that we move
4 Resolution 17-10.

5 BOARD MEMBER DE LA TORRE: Second.

6 CHAIR NICHOLS: We have a second.

7 All those in favor please say aye?

8 (Unanimous aye vote.)

9 (Senator Lara, Assembly Member Garcia and
10 Supervisor Roberts not present.)

11 CHAIR NICHOLS: Opposed?

12 Or abstentions?

13 We have no abstentions.

14 All right. Thank you all very much.

15 It has been a long day, but we really got a lot
16 done. So thank you very much.

17 BOARD CLERK McREYNOLDS: Madam Chair, we have a
18 public comment.

19 CHAIR NICHOLS: Is there is someone who's asked
20 to comment from the general public on a general comment
21 not before the Board?

22 Oh, that's the card I have right here. I
23 apologize. I didn't know that that was what it was for.
24 It's yellow. I should have recognized it.

25 All right. Mr. Harvey Eder.

1 I'm not -- oh, it's -- he's back. Your
2 handwriting changed.

3 MR. EDER: Hello. I'm Harvey Eder talking for
4 myself and for the Public Solar Power Coalition. I've
5 come before you in the past. That was when Dr. -- at
6 least when Dr. Lloyd was here for electric vehicles, 12,
7 15 years ago.

8 Now, we're cutting back our numbers on electric
9 again, only one and a half million by '25. This is
10 pathetic. Back then, the -- Paul Scott and Plug In
11 American were there. They're the ones that did who sold
12 the electric car, where -- your predecessors were
13 involved.

14 This history is important, because there's been
15 so -- this shows the decades and whatnot of dragging feet.
16 And I first saw solar in Israel nearly fifty years ago on
17 the relative -- my relative's roofs who survived Hitler.
18 I said, What's that? Oh, that's our solar hot water
19 system". We had in the eighties, a third of the size of a
20 giant nuke, 354 megawatts built in the desert out here
21 within 100 miles of here in Daggett and Victorville. And
22 back then, it only cost \$3,500 a kilowatt hour. That's
23 not much.

24 Got a lot of lip from the environmental
25 community. They were out there, after the tax credit,

1 getting their billion dollars, going each year to get them
2 extended and whatnot. It was Luz, an Israeli company.
3 And they've been operating using solid storage. Now,
4 there's a -- concentrating solar has been ignored. When
5 combined with district heating and cooling, you get 70, 80
6 percent of your energy in -- it's in the record for South
7 Coast about the sun shot, the last eight papers in March
8 of last year.

9 Anyway, I'll -- the stuff is way proven out
10 there. There's two gigawatts going in in Chile with
11 24-hour storage at \$0.10 a kilowatt hour by Solar Reserve.

12 CHAIR NICHOLS: All right.

13 MR. SHEARS: I just want to quickly give my --
14 give kudos to the court reporter, who's had to be the --

15 (Applause.)

16 MR. SHEARS: -- the most focused person in the
17 room all day today --

18 (Applause.)

19 MR. SHEARS: -- and deserves a bonus.

20 (Laughter.)

21 CHAIR NICHOLS: That was a good comment.

22 All right. We are adjourned.

23 (Thereupon the Air Resources Board
24 adjourned at 8:06 p.m.)
25

C E R T I F I C A T E O F R E P O R T E R

I, JAMES F. PETERS, a Certified Shorthand Reporter of the State of California, do hereby certify:

That I am a disinterested person herein; that the foregoing California Air Resources Board meeting was reported in shorthand by me, James F. Peters, a Certified Shorthand Reporter of the State of California, and was thereafter transcribed, under my direction, by computer-assisted transcription;

I further certify that I am not of counsel or attorney for any of the parties to said meeting nor in any way interested in the outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 10th day of April, 2017.



JAMES F. PETERS, CSR
Certified Shorthand Reporter
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